ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
1110 W. Washington Street Phoenix, AZ 85007 Phone: (602) 771-2316

SIGNIFICANT PERMIT REVISION TO AIR QUALITY CONTROL PERMIT

(As required by Title 49, Chapter 3, Article 2, Section 49-426, Arizona Revised Statutes)

This air quality control permit does not relieve applicant of responsibility for meeting all air pollution regulations

1. PERMIT TO BE ISSUED TO (Business license name of organization that is to receive permit)

Arizona Public Service Company

2. NAME (OR NAMES) OF OWNER OR PRINCIPALS DOING BUSINESS AS THE ABOVE ORGANIZATION

Arizona Public Service Company

3. MAILING ADDRESS **7522 South Somerton Avenue**
Number Street

Yuma **AZ** **85364**
City or Community State Zip Code

4. ORIGINAL EQUIPMENT LOCATION/ADDRES **7522 South Somerton Avenue**
Number Street

Yuma **Yuma** **AZ** **85364**
City or Community County State Zip Code

5. FACILITIES OR EQUIPMENT DESCRIPTION

Simple Cycle Combustion Turbine Electric Generators (2)

Mechanical Draft Cooling Tower (1)

6. THIS PERMIT ISSUED SUBJECT TO THE FOLLOWING ***Conditions as described in attached***

7. ADEQ SIGNIFICANT REVISION NUMBER **41191** PERMIT CLASS **I**

SIGNIFICANT REVISION ISSUED THIS _____ DAY OF _____ ***, 2006***

Nancy C. Wrona, Director, Air Quality Division
SIGNATURE TITLE

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SIGNIFICANT PERMIT REVISION DESCRIPTION

This significant permit revision authorizes Arizona Public Service Company, Yucca Power Plant to add two new simple-cycle combustion turbine electric generators and one new mechanical draft cooling tower to its existing Operating Permit #31876. Each of the new combustion turbines will have a nominal electric generating capacity of 50 megawatts (MW). In order to stay below the Prevention of Significant Deterioration (PSD) major modification threshold, the Permittee is voluntarily accepting emission caps for the two new combustion turbines. Compliance with these emission caps will be achieved through fuel restriction (natural gas only) and use of air pollution control equipment (selective catalytic reduction and catalytic oxidation).

EMISSIONS (tons per year)

Pollutant	Emission Increase
Nitrogen Oxides, NO_x	30.1
Carbon monoxide, CO	91.8
Sulfur Dioxide, SO_2	10
Particulate matter less than 10 microns, PM_{10}	13.79
Volatile organic compounds, VOC	10

This change meets all the requirements for a significant permit revision outlined in A.A.C. R-18-2-320.

ATTACHMENT "B"

Addenda (Significant Revision #41191) to Operating Permit No. 31876 for Arizona Public Service Company, Yucca Power Plant

This significant permit revision #41191 issued to Arizona Public Service Company permits the addition of two new simple-cycle combustion turbine electric generators and one new mechanical draft cooling tower to the existing Operating Permit #31876.

Condition II, Attachment "B" of Operating Permit #31876 shall be renamed as follows. No substantive changes to this condition are made.

II. PRE-2005 SIMPLE CYCLE COMBUSTION TURBINES AND STARTING DIESEL ENGINES

Condition V, Attachment "B" of Operating Permit #31876 shall be replaced with the following:

V. COOLING TOWERS

A. Particulate Matter and Opacity

1. Emission Limitation

a. The Permittee shall not emit or cause to be emitted into the atmosphere particulate matter in excess of the amount calculated by the following equation:

$E = 55.0P0.11 – 40$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour; and
P = the process weight rate in tons-mass per hour.

[A.A.C. R18-2-730.A.1]

2. The Permittee shall not cause, allow or permit to be emitted into the atmosphere any plume or effluent the opacity of which exceeds 20 percent, measured in accordance with EPA Reference Method 9.

[A.A.C.R18-2-702.B.3]

3. Opacity Monitoring

a. Baseline Opacity

For each cooling tower, within 90 days of the date from issuance of Operating Permit #31876, or within 90 days after initial operation of the cooling tower, whichever is later, the Permittee shall conduct a certified

Method 9 performance test, in accordance with Section XVIII of Attachment "A." Each such test shall be conducted while the cooling tower is operating at normal representative working conditions. The results of each such performance test shall be used to establish a baseline opacity level for the cooling tower. The average of a minimum of three opacity readings will be used to establish the baseline opacity for each cooling tower. Within 30 days of establishing the baseline opacity for a cooling tower, the Permittee shall report the results to the Director.

b. Frequency of Opacity Monitoring

A certified Method 9 observer shall conduct a visual survey of visible emissions from each cooling tower while operating at a normal representative working conditions. A minimum of one visual survey of visible emissions will be conducted for each 720 hours of operation of a cooling tower.

(1) If the observer, during the visual survey, determines that the opacity of the plume is equal or lower than the baseline opacity, then the observer shall keep a record of the name of the observer, the date on which the observation was made, and the results of the observations.

(2) If the observer, during the visual survey, sees a plume that on an instantaneous basis appears to exceed the baseline opacity level, then the observer shall take a six-minute Method 9 observation of the plume. If the six minute opacity of the plume is equal or less than the baseline opacity level, the observer shall make a record of the following:

(a) Location, date, and time of the observation; and

(b) The result of the Method 9 observation.

(3) If the six-minute opacity of the plume exceeds the baseline opacity level but is less than the applicable opacity standard, the Permittee shall adjust or repair the equipment to reduce the opacity to the baseline level. The observer shall make a record of the following:

(a) Location, date, and time of the observation;

(b) The results of the Method 9 observation;

(c) Date and time when corrective action was taken; and

(d) Type of corrective action taken.

(4) If the six-minute opacity of the plume exceeds the applicable opacity standard, the Permittee shall do the following:

(a) Adjust or repair the equipment to reduce opacity to the baseline level;

(b) Report it as an excess emission for opacity; and

(c) Make a record of the following:

i. Location, date, and time of the observation;

ii. The results of the Method 9 observation;

iii. Date and time when adjustment and repair was performed; and

iv. Type of corrective action taken.

c. If necessitated by the results of the visual survey, the Permittee may reestablish the baseline opacity level. Reestablishment of the baseline shall be performed utilizing the same procedures used in setting up the initial baseline level. Within 30 days of re-establishing the baseline opacity, the Permittee shall report the results to the Director. The report shall also contain a description of the need for re-establishing the baseline.

4. Where a stack, vent, or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce, or eliminate the discharge of air pollution to adjoining property.

[A.A.C.R18-2-730.G]

5. Permit Shield

Compliance with the conditions of this part shall be deemed compliance with A.A.C.R18-2-702.B, 730.A.1 and 730.G.

[A.A.C.R18-2-325]

Condition IX, Attachment "B" of Operating Permit #31876 shall be added as follows:

IX. NSPS GAS TURBINE UNITS

A. General Provisions

The following requirements apply to the operation, maintenance, and testing of Gas Turbine 5 and Gas Turbine 6 and associated air pollution control and monitoring systems in accordance with 40 CFR part 60, Subpart A – General Provisions. When used in the General Provisions, "Administrator" shall mean the Director of the Arizona Department of Environmental Quality.

1. All requests, reports, applications, submittals, and other communications to the Director pursuant to A.A.C. R18-2-901, -902, and 40 CFR Part 60 shall be submitted in duplicate to the EPA Region 9 office at the following address:

   Director, Air Division (Attn: AIR-1)
   EPA Region IX
   75 Hawthorne Street
   San Francisco, CA 94105

   [A.A.C. R18-2-901, -902, 40 CFR 60.4(a)]

2. The Permittee shall comply with the general notification requirements contained in 40 CFR 60.7(a), including but not limited to:

   a. Notification of the date of construction of each affected facility postmarked no later than 30 days after such date.

   b. Notification of the actual date of initial startup of each affected facility postmarked within 15 days after such date.

   c. Notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c) postmarked not less than 30 days prior to such date.

   [A.A.C. R18-2-901(1) {40 CFR 60.7(a)}]

3. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

   [A.A.C. R18-2-901(1) {40 CFR 60.7(b)}]

4. The Permittee shall submit excess emissions and monitoring systems performance reports and/or summary report forms on a semi-annual basis as required by 40 CFR 60.7(c) and (d).

   [A.A.C. R18-2-901(1) {40 CFR 60.7(c), 60.7(d), 60.7(e)}]

5. The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements;

all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as provided in 40 CFR 60.7(f)(1) and (2).

[A.A.C. R18-2-901(1) {40 CFR 60.7(f)}]

6. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate these facilities including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[A.A.C. R18-2-901(1) {40 CFR 60.11(d)}, 40 CFR 60.4333]

7. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR Part 60, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[A.A.C. R18-2-901(1) {40 CFR 60.11(g)}]

8. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with opacity standard or with a standard, which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[A.A.C. R18-2-901(1) {40 CFR 60.12}]

9. The Permittee shall comply with the "General notification and reporting requirements" found in 40 CFR 60.19.

[A.A.C. R18-2-901(1) {40 CFR 60.19}]

10. State-only Enforceable NSPS Provisions

Until such time as Subpart KKKK of 40 CFR Part 60 is incorporated by reference into A.A.C. R18-2-901, the Permittee shall comply with all applicable provisions of Subpart GG of 40 CFR Part 60, as of July 1, 2004.

[A.A.C. R18-2-901(40): State-only enforceable]

B. Operational Limitations

1. Fuel Limitation

The Permittee shall not cause or allow the combustion of any fuel in Gas Turbine 5 or Gas Turbine 6 other than pipeline quality natural gas.

[A.A.C. R18-2-306.A.2]

2. Monitoring, Recordkeeping, and Reporting Requirements

On a daily basis, the Permittee shall keep records of the type of fuel burned in Gas Turbine 5 and Gas Turbine 6.

[A.A.C. R18-2-306.A.4]

C. Nitrogen Oxides

1. Emission Limitations/Standards

a. Synthetic Minor Emission Limitation

Total combined emissions of NO_X from Gas Turbine 5 and Gas Turbine 6 shall not exceed 30.1 tons per year, calculated and recorded daily as a rolling 365-day sum.

[A.A.C R18-2-306.01.A, -306.02, -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

b. NSPS Subpart KKKK Emission Limit

Gas Turbine 5 and Gas Turbine 6 shall meet the following NO_X emission limit: 25 parts per million by volume (ppmv) at 15 percent O_2.

[40 CFR 60.4320]

2. Air Pollution Control Equipment

At all times when Gas Turbine 5 and/or Gas Turbine 6 are in operation, including periods of startup, shutdown, and malfunction, the Permittee shall to the extent practicable, maintain and operate the selective catalytic reduction systems in a manner consistent with good air pollution control practice for minimizing NO_X emissions.

[A.A.C. R18-2-901(1) {40 CFR 60.11(d)}, A.A.C. R18-2-331.A.3.e]
[Material permit conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. NSPS Subpart KKKK Monitoring Requirements

(1) *The Permittee shall install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_X monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_X emission rate in ppmv.*

[A.A.C. R18-2-331.A.3.c, 40 CFR 60.4335(b)]
[Material permit conditions are indicated by underline and italics]

(2) *Each NO_X diluent CEMS must be installed and certified according to Appendix A to 40 CFR Part 75. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.*

[A.A.C. R18-2-331.A.3.c, 40 CFR 60.4345(a)]
[Material permit conditions are indicated by underline and italics]

(3) As specified in 40 CFR § 60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour.

[40 CFR 60.4345(b)]

(4) With respect to the CEMS described in Condition IX.C.3.a.1, the Permittee shall implement the quality assurance (QA) program and plan described in Section 1 of Appendix B to 40 CFR Part 75.

[40 CFR 60.4345(e)]

(5) For purposes of identifying excess emissions:

[40 CFR 60.4350]

(a) All CEMS data shall be reduced to hourly averages as specified in 40 CFR § 60.13(h).

[40 CFR 60.4350(a)]

(b) For each unit operating hour in which a valid hourly average, as described in Condition IX.C.3.a(3), is obtained for both NO_X and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_X emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in Appendix A to 40 CFR Part 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations.

[40 CFR 60.4350(b)]

(c) Correction of measured NO_X concentrations to 15 percent O_2 is not allowed.

[40 CFR 60.4350(c)]

(d) Only quality assured data from the CEMS shall be used to identify excess emissions. Periods where the missing data substitution procedures in Subpart D of 40 CFR Part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR § 60.7(c).

[40 CFR 60.4350(d)]

(e) Calculate the hourly average NO_X emission rates, in units of ppm.

[40 CFR 60.4350(f)]

(f) Use the calculated hourly average emission rates from Condition IX.C.3.a.(5)(e) to assess excess emissions on a 4-hour rolling average basis, as described in Condition Condition IX.C.3.c.(2)(a).

[40 CFR 60.4350(g)]

b. Annual NOx Emission Limit

(1) *The Permittee shall install, certify,* maintain, and continuously operate *continuous emission rate monitoring systems for monitoring and recording NO_X emissions to the atmosphere from Gas Turbine 5 and Gas Turbine 6*.

[A.A.C. R18-2-306.A.3, -306.02.C, -331.A.3.c]
[Material permit conditions are indicated by underline and italics]

(a) The NO_X continuous emission monitoring systems required by Condition IX.C.3.a(1) shall be used as the NO_X analyzers within the continuous emission rate monitoring systems.

[A.A.C. R18-2-306.A.3, -306.02.C]

(b) The continuous emission rate monitoring systems shall meet the requirements of Performance Specification 6, Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources, in Appendix B to 40 CFR Part 60.

[A.A.C. R18-2-306.A.3, -306.02.C]

(c) The Permittee shall submit a Quality Assurance/Quality Control Plan to the Director 30 days prior to the instrument start-up including procedures for dealing with data gaps based on the procedures contained in 40 CFR Part 75, Subpart D (§ 75.30). When approved by the Director, this plan shall be implemented.

[A.A.C. R18-2-306.A.3, -306.02.C]

c. NSPS Subpart KKKK Reporting Requirements

(1) For Gas Turbine 5 and Gas Turbine 6, the Permittee shall submit reports of excess emissions and monitor downtime in accordance with 40 CFR § 60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

[40 CFR 60.4375(a)]

(2) For the purpose of reports required under 40 CFR § 60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

[40 CFR 60.4380]

(a) An excess emissions is any unit operating period in which the 4-hour rolling average NO_X emission rate exceeds the emission limit in Condition IX.C.1.b. For the purposes of this permit term, a "4-hour rolling average NO_X emission rate" is the arithmetic average of the average NO_X emission rate in ppm measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_X emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_X emission rate is obtained for at least 3 of the 4 hours.

[40 CFR 60.4380(b)(1)]

(b) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_X concentration, CO_2 or O_2 concentration.

[40 CFR 60.4380(b)(2)]

(3) All reports required under 40 CFR § 60.7(c) must be postmarked by the 30th day following the end of each six-month period.

[40 CFR 60.4395]

4. Performance Testing Requirements

a. For Gas Turbine 5 and Gas Turbine 6, the Permittee shall perform an initial performance test for NO_X emissions within 60 days after achieving the maximum production rate at which the unit will be operated but not later than 180 days after initial startup.

[A.A.C. R18-2-901(1) {40 CFR 60.8}]

b. Each initial performance test for NO_X emissions shall be performed as follows.

[A.A.C. R18-2-901(1) {40 CFR 60.8}]

(1) Perform a minimum of nine RATA reference method runs, with a minimum time per run of 21 minutes, at a single load level,

within plus or minus 25 percent of 100 percent of peak load. The ambient temperature must be greater than 0 °F during the RATA runs.

[40 CFR 60.4405(a)]

(2) For each RATA run, concurrently measure the heat input to the unit using a fuel flow meter (or flow meters) and measure the electrical and thermal output from the unit.

[40 CFR 60.4405(b)]

(3) Use the test data both to demonstrate compliance with the NO_X emission limit in Condition IX.C.1.b and to provide the required reference method data for the RATA of the CEMS required by Condition IX.C.3.a(1).

[40 CFR 60.4405(c)]

(4) Compliance with the emission limit in Condition IX.C.1.b is achieved if the arithmetic average of all of the NO_X emission rates for the RATA runs, expressed in units of ppm, does not exceed the emission limit.

[40 CFR 60.4405(d)]

5. Permit Shield

Compliance with Condition IX.C shall be deemed compliance with the following requirements as of the date of issuance of this permit: 40 CFR: 60.4333, 60.4320, 60.4335(b), 60.4345(a), 60.4345(b), 60.4350(a), 60.4350(b), 60.4350(c), 60.4375(a), 60.4380(b)(1), 60.4380(b)(2), 60.4395, 60.4350(d), 60.4350(f), 60.4350(g), 60.4405(b), 60.4405(c), and 60.4405(d).

[A.A.C.R18-2-325]

D. Sulfur Dioxide

1. Emission Limitations/Standards

The Permittee shall not burn in Gas Turbine 5 or Gas Turbine 6 any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2 per Joule (0.060 lb SO_2 per MMBtu) heat input.

[40 CFR 60.4330(a)(2)]

2. Monitoring, Recordkeeping, and Reporting Requirements

a. NSPS Subpart KKKK Monitoring Requirements

(1) The Permittee shall demonstrate that the fuel burned in Gas Turbine 5 and Gas Turbine 6 does not exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. The Permittee shall use the following source of information to make the required demonstration:

[40 CFR 60.4365]

(2) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet.

[40 CFR 60.4365(a)]

3. Performance Testing Requirements

a. For Gas Turbine 5 and Gas Turbine 6, the Permittee shall perform an initial performance test for SO_2 emissions within 60 days after achieving the maximum production rate at which the unit will be operated but not later than 180 days after initial startup. The Permittee shall conduct subsequent performance tests for SO_2 emissions on an annual basis (no more than 14 calendar months following the previous performance test). Each performance test for SO_2 emissions shall be conducted using one of the following three methodologies:

[40 CFR 60.4415(a), A.A.C. R18-2-901(1) {40 CFR 60.8}]

(1) Determine the sulfur content of the natural gas combusted in the turbine as follows: Collect a representative fuel sample following ASTM D5287, incorporated by reference at 40 CFR § 60.17. The fuel analyses may be performed either by the Permittee, a service contractor retained by the Permittee, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377, all of which are incorporated by reference at 40 CFR § 60.17.

[40 CFR 60.4415(a)(1)]

(2) Measure the SO_2 concentration (in ppm), using EPA Methods 6, 6C, 8, or 20 in Appendix A to 40 CFR Part 60. Alternatively, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide, incorporated by reference at 40 CFR § 60.17, can be used instead of EPA Methods 6 or 20.

[40 CFR 60.4415(a)(2)]

(3) Measure the SO_2 and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in Appendix A to 40 CFR Part 60. Alternatively, the Permittee may use the manual methods for SO_2 ASME PTC 19-10-1981-Part 10, incorporated by reference at 40 CFR § 60.17. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in Appendix A to 40 CFR Part 60 to calculate the SO_2 emission rate in lb/MMBtu.

[40 CFR 60.4415(a)(3)]

4. Permit Shield

Compliance with Condition IX.D shall be deemed compliance with the following requirements as of the date of issuance of this permit: 40 CFR: 60.4330(a)(2), 60.4365(a), 60.4415(a)(1), 60.4415(a)(2), and 60.4415(a)(3).

[A.A.C.R18-2-325]

E. Carbon Monoxide

1. Emission Limitations/Standards

a. Synthetic Minor Emission Limitation

Total combined emissions of CO from Gas Turbine 5 and Gas Turbine 6 shall not exceed 91.8 tons per year, calculated and recorded daily as a rolling 365-day sum.

[A.A.C R18-2-306.01.A, -306.02, -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

2. Air Pollution Control Equipment

At all times when Gas Turbine 5 and/or Gas Turbine 6 are in operation, including periods of startup, shutdown, and malfunction, the Permittee shall to the extent practicable, maintain and operate the oxidation catalyst systems in a manner consistent with good air pollution control practice for minimizing CO emissions.

[A.A.C. R18-2-331.A.3.e]
[Material permit conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall install, certify,* maintain, and continuously operate *continuous emission rate monitoring systems for monitoring and recording CO emissions to the atmosphere from Gas Turbine 5 and Gas Turbine 6*.

[A.A.C. R18-2-306.A.3, -306.02.C, -331.A.3.c]
[Material permit conditions are indicated by underline and italics]

(1) The continuous emission rate monitoring systems shall meet the requirements of Performance Specification 4a, Specifications and Test Procedures for Carbon Monoxide Continuous Emission Monitoring Systems in Stationary Sources, in Appendix B to 40 CFR Part 60.

[A.A.C. R18-2-306.A.3, -306.02.C]

(2) The continuous emission rate monitoring systems shall meet the requirements of Performance Specification 6, Specifications and Test Procedures for Continuous Emission Rate Monitoring

Systems in Stationary Sources, in Appendix B to 40 CFR Part 60.

[A.A.C. R18-2-306.A.3, -306.02.C]

(3) The Permittee shall submit a Quality Assurance/Quality Control Plan to the Director 30 days prior to the instrument start-up including procedures for dealing with data gaps based on the procedures contained in 40 CFR 75, Subpart D (§ 75.30). When approved by the Director, this plan shall be implemented.

[A.A.C. R18-2-306.A.3, -306.02.C]

F. Particulate Matter

1. Emission Limitations/Standards

a. Synthetic Minor Emission Limitation

Total combined emissions of PM_{10} from Gas Turbine 5 and Gas Turbine 6 shall not exceed 10.5 tons per year, calculated daily as a rolling 12-month sum.

[A.A.C R18-2-306.01.A, A.A.C R18-2-331.A.3.a]

2. Performance Testing Requirements

a. For Gas Turbine 5 and Gas Turbine 6, the Permittee shall perform an initial performance test for PM_{10} emissions within 60 days after achieving the maximum production rate at which the unit will be operated but not later than 180 days after initial startup.

[A.A.C. R18-2-312]

b. Each initial performance test for PM_{10} emissions shall be performed using EPA Methods 201 or 201A and EPA Method 202.

[A.A.C. R18-2-312]

c. The Permittee shall record and report the results of each initial performance test for PM_{10} emissions in units of lb/MMBtu heat input.

[A.A.C. R18-2-306.A.3.c]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall install, certify,* maintain, and continuously operate *continuous monitoring systems for monitoring and recording fuel flow to Gas Turbine 5 and Gas Turbine 6*.

[A.A.C. R18-2-306.A.3, -306.02.C, -331.A.3.c]
[Material permit conditions are indicated by underline and italics]

(1) The fuel flow monitoring systems shall meet the requirements of Appendix D to 40 CFR Part 75.

[A.A.C. R18-2-306.A.3, -306.02.C]

b. For Gas Turbine 5 and Gas Turbine 6, the Permittee shall calculate and record hourly heat input rate in accordance with the procedures in Section 5.5 of Appendix F to 40 CFR Part 75.

[A.A.C. R18-2-306.A.3, -306.02.C]

c. Within 10 days after the end of each calendar month, the Permittee shall calculate and record monthly and rolling 12-month PM_{10} emissions from Gas Turbine 5 and Gas Turbine 6. The PM_{10} emission rate shall be calculated as the product of the PM_{10} emission factor determined in accordance with Condition IX.F.2.c and the heat input rate determined in accordance with Condition IX.F.3.b.

[A.A.C. R18-2-306.A.3.c]

F. Ammonia

1. Emission Standards

The Permittee shall not allow the emissions of ammonia (slippage) from each unit to exceed 10 ppmvd corrected to 15% O_2.

[A.A.C. R18-2-306.A.2]

2. Testing Requirements

Within 180 days of initial startup, the Permittee shall conduct a performance test for ammonia slippage using methods approved by the Director. The performance test shall be repeated in the last year of the permit term.

[A.A.C. R18-2-312]

Attachment C (Phase II Acid Rain Provisions) of Operating Permit #31876 is amended to read as follows:

I. STATEMENT OF BASIS

Statutory and Regulatory Authorities: In accordance with Arizona Revised Statutes, Title 49, Chapter 3, Article 2, Section 426.N, and Titles IV and V of the Clean Air Act, the Arizona Department of Environmental Quality issues this Phase II Acid Rain Permit pursuant to Arizona Administrative Code, Title 18, Chapter 2, Article 3, Section 333 (A.A.C. R18-2-333), ▪Acid Rain•.

II. SO_2 ALLOWANCE▪ ALLOCATIONS AND NO_X REQUIREMENTS FOR EACH AFFECTED UNIT

		2004	2005	2006	2007	2008	2009	2010
Unit 1	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	NA	NA	42*	42*	42*	42*	42*
	NO_x limit	This unit is not subject to a NO_x limit under 40 CFR Part 76.						
Gas Turbine 5 and Gas Turbine 6	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	-	-	-	-	NA	NA	NA
	NO_x limit	This unit is not subject to a NO_x limit under 40 CFR Part 76.						

▪ As defined under 40 CFR •72.2, ▪Allowance• means an authorization by the Administrator under the Acid Rain Program to emit up to one ton of sulfur dioxide during or after a specified calendar year.

* The number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

III. COMENTS, NOTES AND JUSTIFICATIONS

None.

IV. Permit Application

The Permittee, and any other owners or operators of the units at this facility, shall comply with the requirements contained in the acid rain permit application (OMB No. 2060-0258) signed by Robert B. Brooks on June 26, 2006.

Equipment List, Attachment “D” of Operating Permit #31876 shall be replaced with the following:

EQUIPMENT LIST

Description	Maximum Capacity	Make/ Model	Serial Number	Equipment ID	Date of Manufacture
Tangentially-fired steam electric generating unit	80 MW*	Combustion Engineering	188895	Steam Unit 1	3/4/59
Simple cycle gas turbine generating unit	19.1 MW*	General Electric Frame 5	214363	Gas Turbine 1	7/1/71
Simple cycle gas turbine generating unit	19.1 MW*	General Electric Frame 5	214362	Gas Turbine 2	7/1/71
Simple cycle gas turbine generating unit	54.6 MW*	General Electric Frame 7	217812	Gas Turbine 3	6/20/73
Simple cycle gas turbine generating unit	53.9 MW*	General Electric Frame 7	237986	Gas Turbine 4	7/9/74
Simple cycle gas turbine generating unit	50.0 MW*	General Electric LM6000	TBD	Gas Turbine 5	TBD (after 2/18/2005)
Simple cycle gas turbine generating unit	50.0 MW*	General Electric LM6000	TBD	Gas Turbine 6	TBD (after 2/18/2005)
Simple cycle gas turbine generating unit	21.6 MW*	General Electric Frame 5	245107	Gas Turbine 21	12/28/78 (Commenced construction prior to October 3, 1977)
Gas turbine no. 1 startup engine	500 HP*	O' Donell-Quigley Model 7123-7000	12VA24361	Diesel Startup Engine CT 1	7/1/71
Gas turbine no. 2 startup engine	500 HP*	O' Donell-Quigley Model 7123-7000	12VA24360	Diesel Startup Engine CT 2	7/1/71

Description	Maximum Capacity	Make/ Model	Serial Number	Equipment ID	Date of Manufacture
Gas turbine no. 21 startup engine	500 HP*	Massaro Detroit Diesel Allison Model 7123-7000	12VA05831	Diesel Startup Engine CT 21	12/28/78 (Commenced construction prior to October 3, 1977)
Boiler to heat fuel oil for steam unit	71.2 MMBtu/hr	Cleaver Brooks DL-68-400-CN-5	7869	Auxiliary Boiler	1974
Cooling tower	40,000 gpm	Foster Wheeler	--	Cooling Tower	--
Cooling tower	6,000 gpm	TBD	TBD	Chiller Cooling Tower	TBD

Note: *Rated generating capacity of the unit